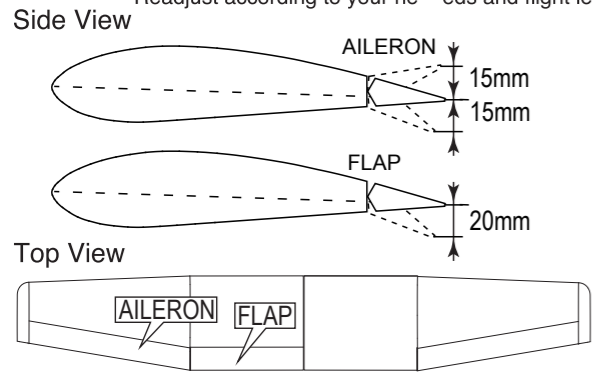


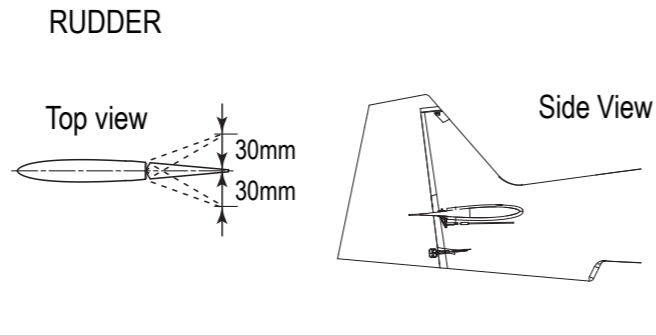
71 Adjustment.

Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.



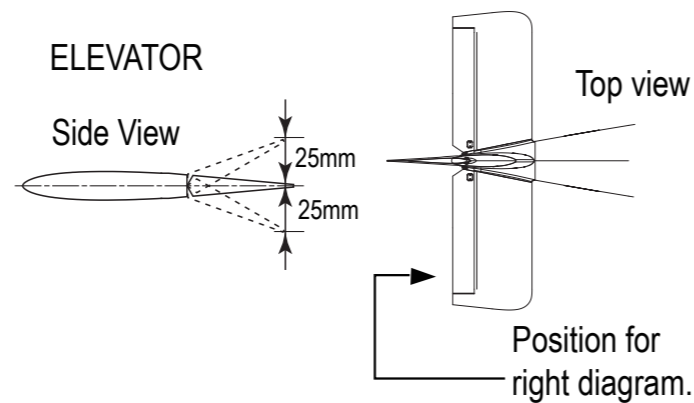
72 Adjustment.

Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.



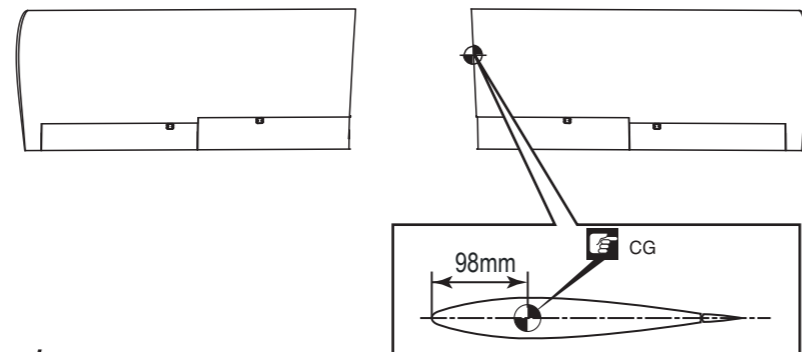
73 Adjustment.

Adjust the travel of each control surface to the values in the diagrams. These values fit general flight capabilities. Readjust according to your needs and flight level.



74 Centre of Gravity.

Never fly before checking the CG's required position. In order to obtain the CG specified, reposition the receiver and battery.



Warning!
NEVER fly the model without well balancing.

Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

Before start , please carefully read the explanations!

Robin 2160



Specification:

- Specification:
- Length :1757 mm(69.2")
- Wing Span :2210 mm(87")
- Wing Area :72 sq. dm
- 7.75 sq. ft
- Wing Loading :131.9 g/sq. dm
- 43.2oz/sq. ft
- Flying Weight :9.5 kg(20.9 lbs)
- Radio :6ch&8 servos
- Engine :3W 50cc

INSTRUCTION MANUAL

SAFETY PRECAUTIONS



This R/C airplane is not a toy!
(The people under 18 years old is forbidden from flying this model)

First-time builders should seek advice from people having building experience. If misused or abused, it can cause serious bodily injury and damage to property.

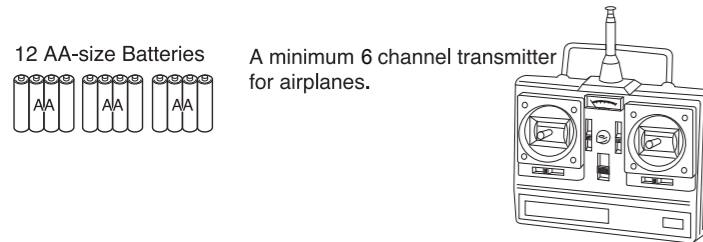
Fly only in open areas and preferably at a dedicated R/C flying site. We suggest having a qualified instructor carefully inspect your airplane before its first flight. Please carefully read and follow all instructions included with this airplane, your radio control system and any other components purchased separately.

REQUIRED FOR OPERATION (Purchase separately!)

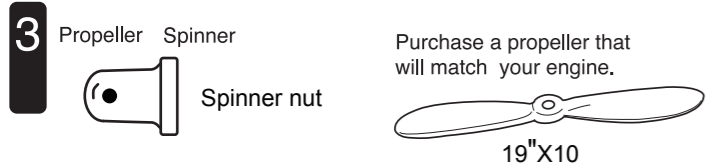
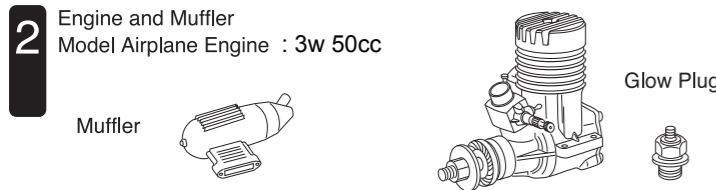
CAUTION: For details concerning the equipment listed below (size, maker, etc.), check with your hobby shop.

1 A minimum 6 channel radio for airplanes (with 8 servos), and dry batteries.

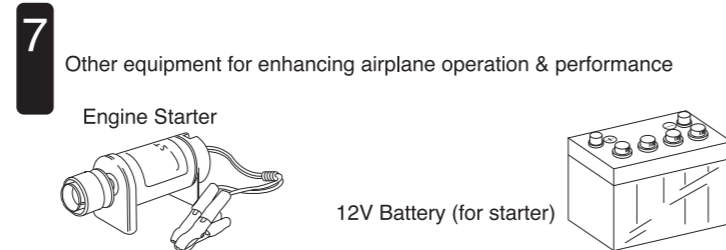
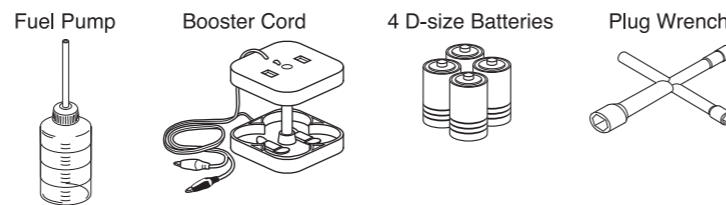
CAUTION: Only use a minimum 6 channel radio for airplanes! (No other radio may be used!)
6 channel radio for aiplane is highly recommended for this model.



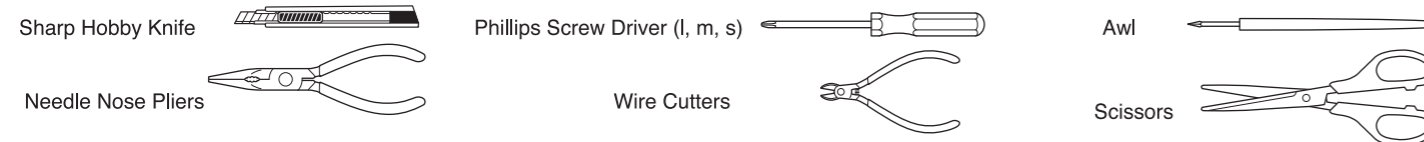
For handling the radio properly, refer to its instruction manual.



5 Required for engine starting: **WARNING:** Normal gasoline cannot be used with glow engines. (Glow engine fuel only.)



TOOLS REQUIRED (Purchase separately!)



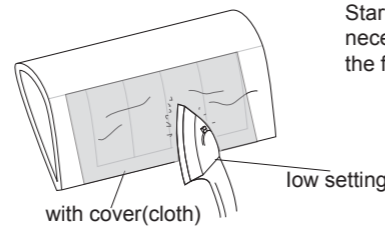
BEFORE YOU BEGIN

- 1 Read through the manual before you begin, so you will have an overall idea of what to do.
- 2 Check all parts. If you find any defective or missing parts, contact your local dealer.
- 3 Symbols used throughout this instruction manual, comprise:

Apply epoxy glue.	Drill holes with the specified diameter (2mm).	Cut off excess.	Pay close attention here!	Assemble left and right sides the same way.
Apply instant glue (CA glue, super glue).	Cut off shade portion.	Ensure smooth non-binding movement while assembling.	Warning!	Must be purchased separately!

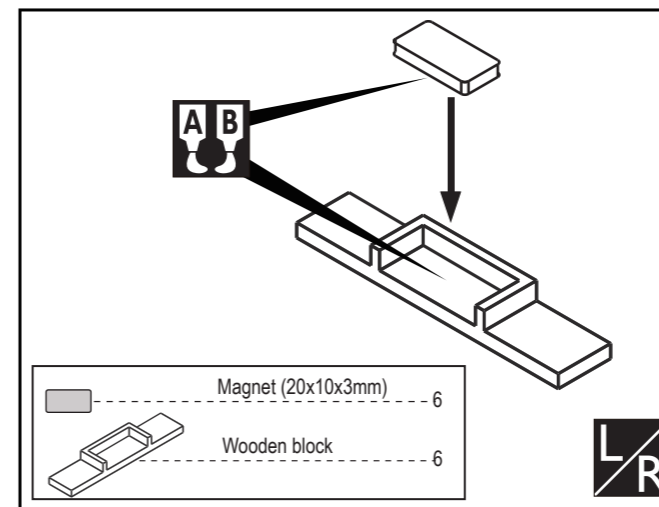
Warning
Remove the covering with proper pressure to cut through only the covering itself. Otherwise, cutting down into the balsa structure may weaken the model part and cause accident.

The pre-covered film on ARF kits may wrinkle due to variations of temperature. Smooth out as explained right.

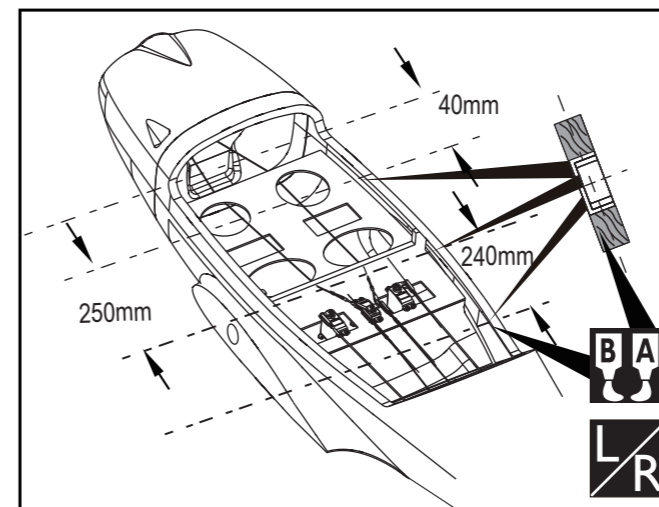


► Pre-cover the covering with clean cloth! Start at low setting. Increase the setting if necessary. If it is too high, you may damage the film.

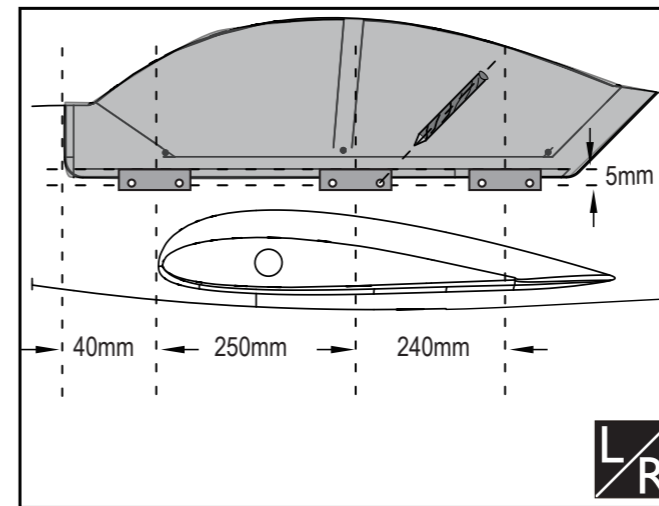
65 Epoxy the magnet to the wooden block as below.



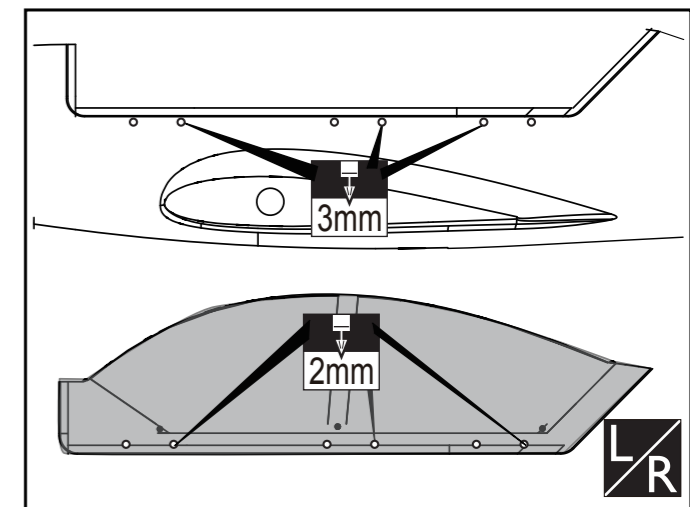
66 Epoxy the wooden block to the appropriate position in the fuselage.



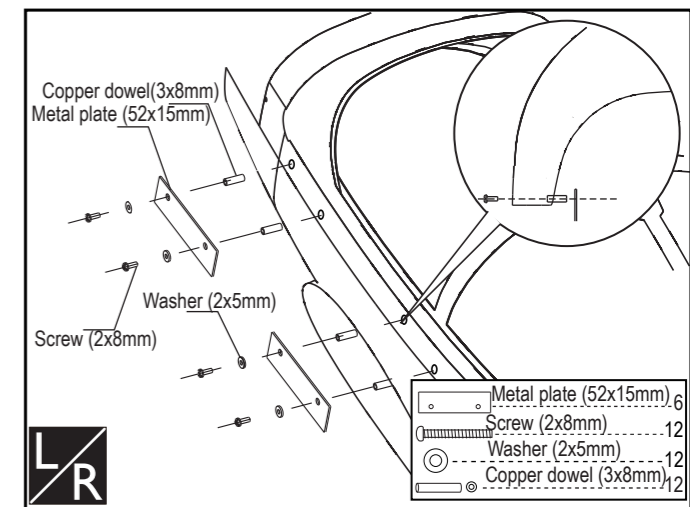
67 According to the data as below line mark the four small holes.



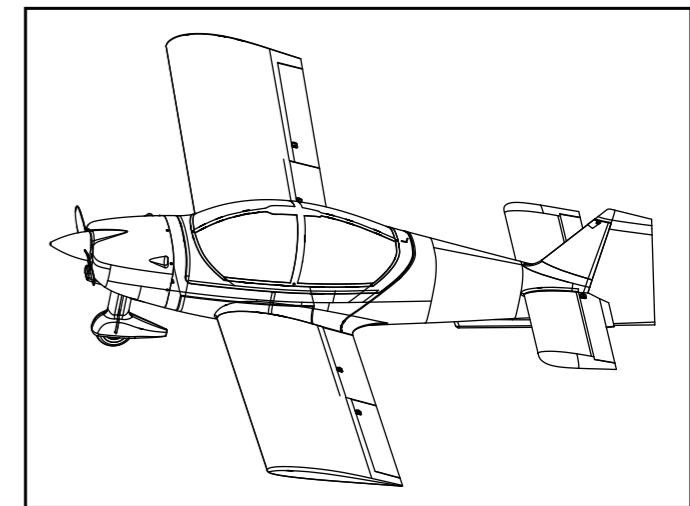
68 According to the marks drill bores as below.



69 Assemble the canopy to the fuelage as below.

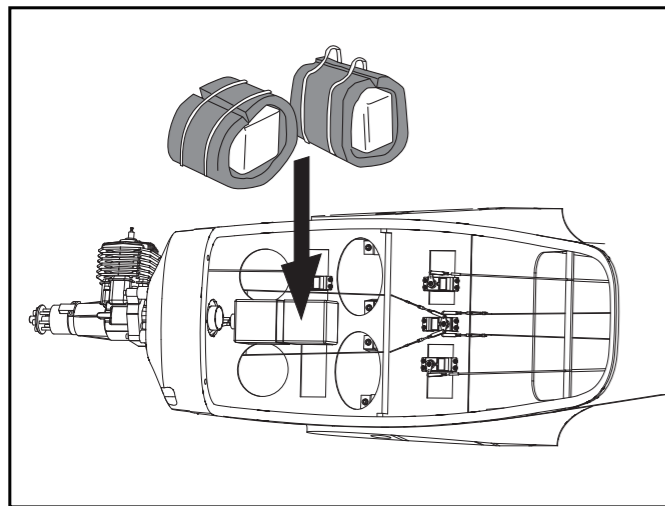


70 Because the canopy is so big, perhaps there will be a little windage. Please make sure the canopy is on the best position when assemble it.

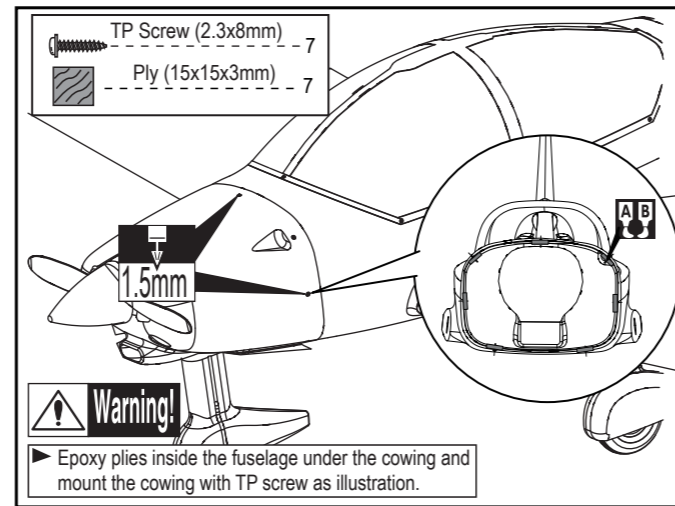


Apply epoxy glue.	Assemble left and right sides the same way.	Pay close attention here!	Warning!
Apply instant glue (CA glue, super glue).	Ensure smooth non-binding movement while assembling.	Cut off shaded portion.	

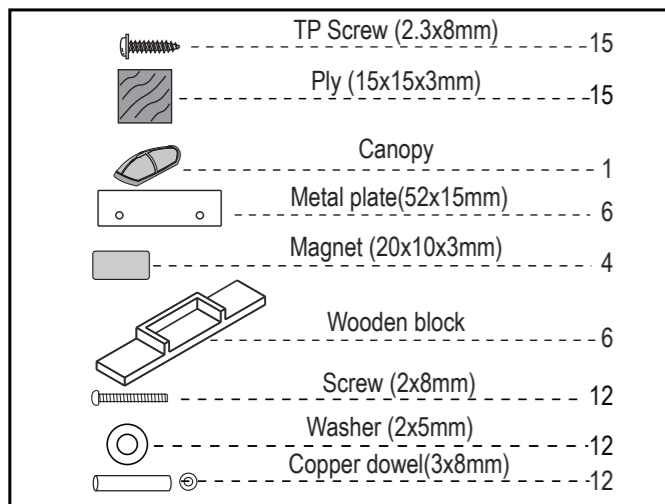
60 Mount the receiver and the battery to the fuselage.



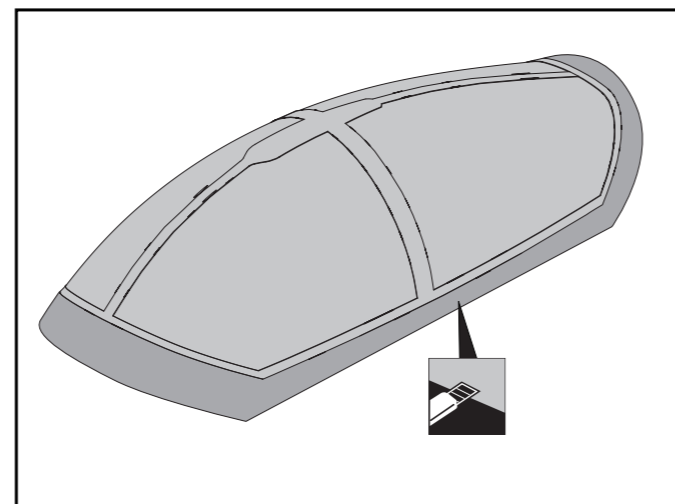
62 Assemble the cowling.



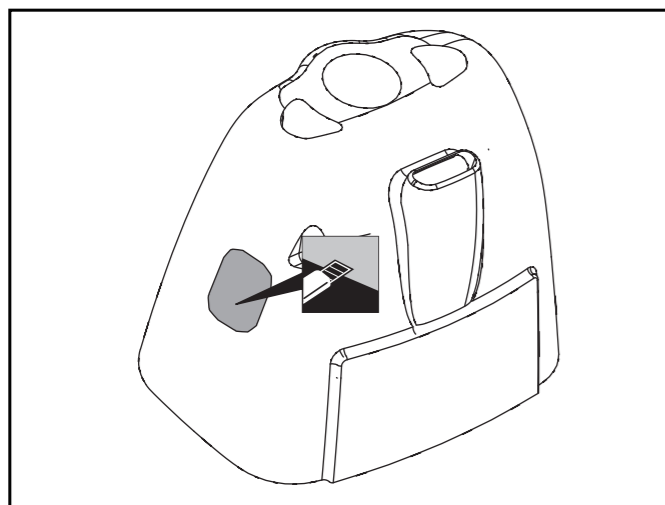
Accessory list for the coming installation steps.



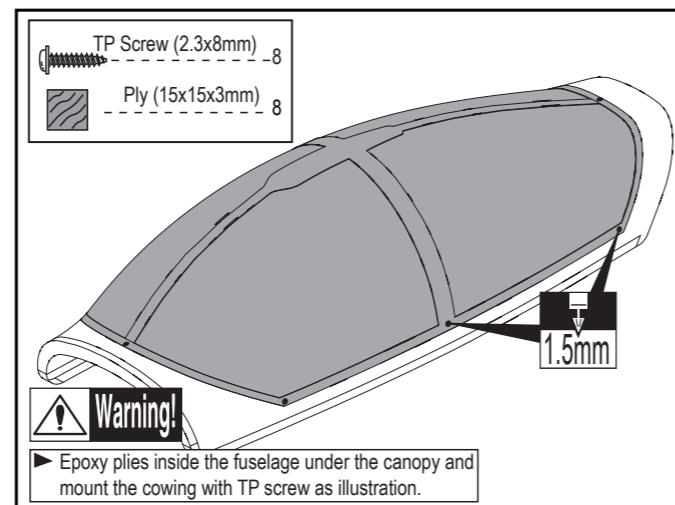
63 Cut off the surplus part along the shaded area.



61 Trim the cowling for engine and muffler.



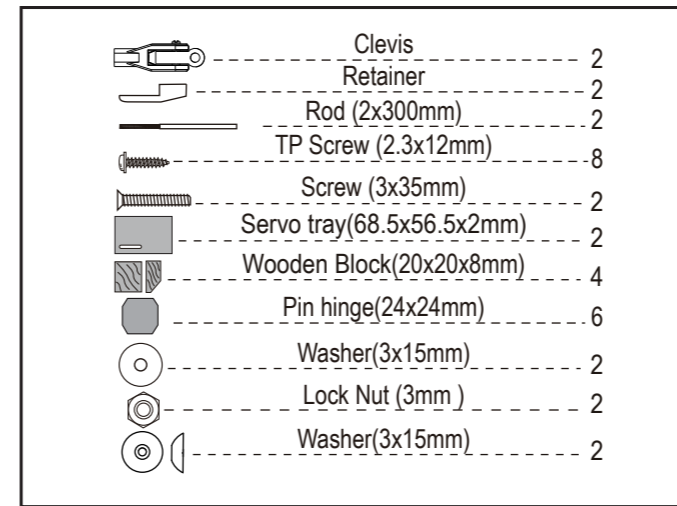
64 Fix the canopy with self-tapping screws.



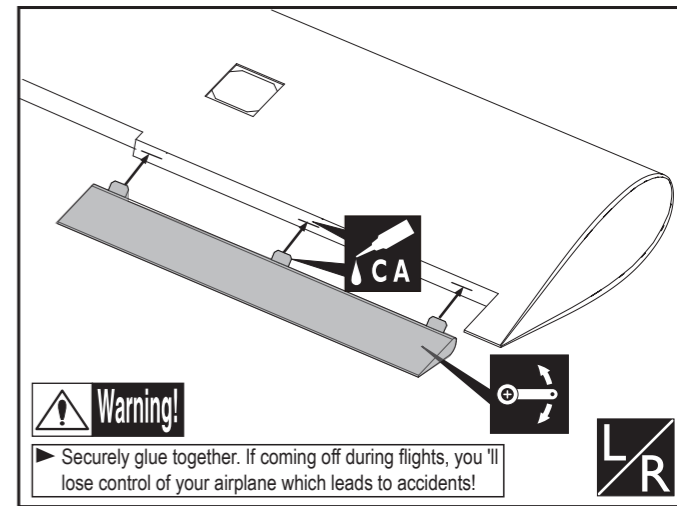
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

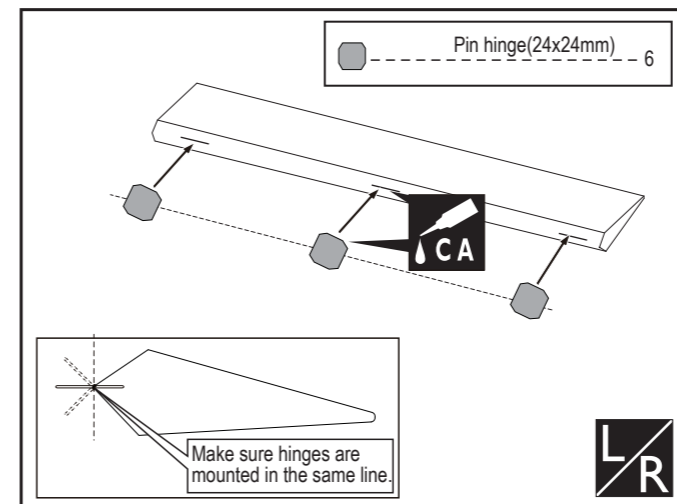
Accessory list for the coming installation steps.



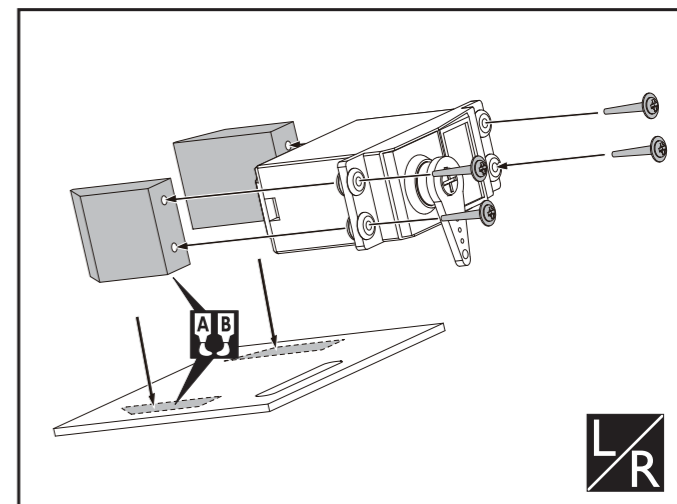
3 Assemble the aileron to main wing with instant type CA glue. Be careful to ensure the moving parts of the hinges are able to move freely.



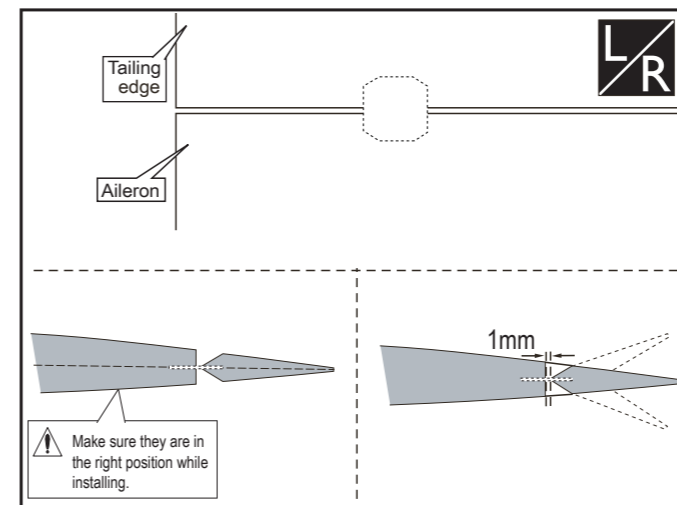
1 Apply instant type CA glue to aileron and pin hinge.



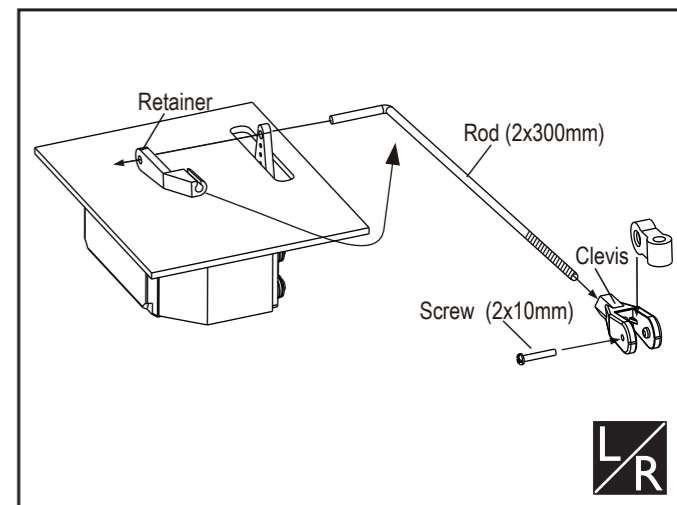
4 Install the servo as the illustration below



2 Keep some space about 1mm width between aileron and trailing edge.



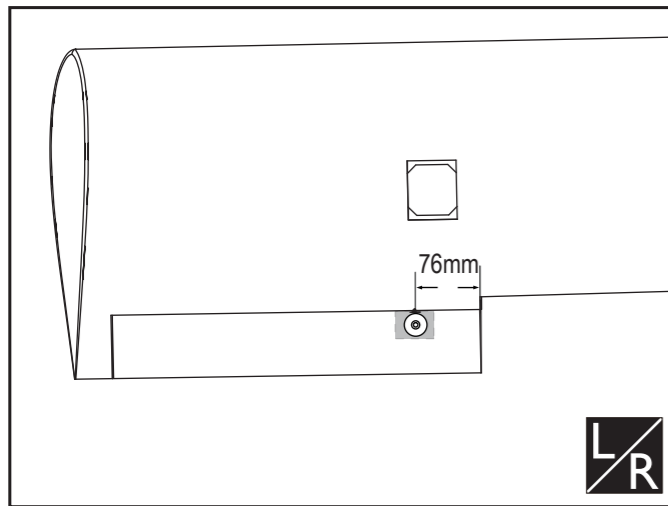
5 Install the nylon control horn and connect the linkage.



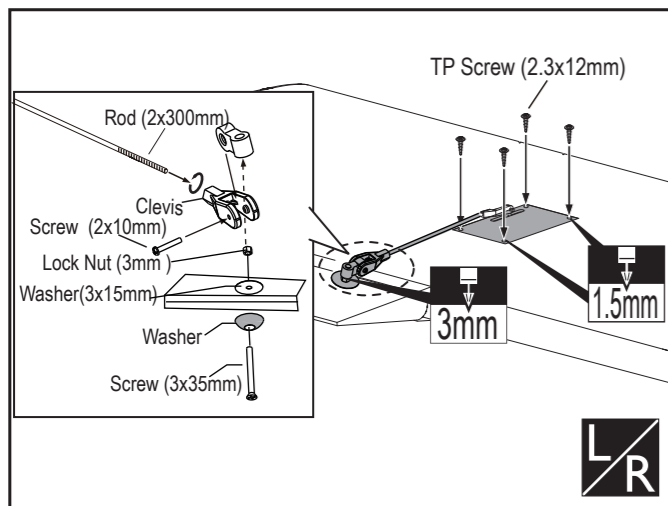
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

6 The position of the control horn in the aileron.



7 Secure the servo. Install the nylon control horn and connect the linkage.



Accessory list for the coming installation steps.

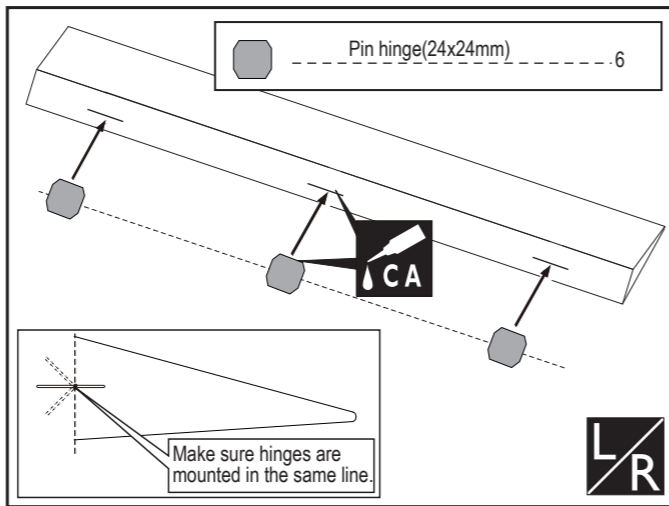
	Clevis	2
	Retainer	2
	Rod (2x300mm)	2
	TP Screw (2.3x12mm)	8
	Screw (3x35mm)	2
	Servo tray (68.5x56.5x2mm)	2
	Wooden Block (20x20x8mm)	4
	Pin hinge (24x24mm)	6
	Washer (3x15mm)	2
	Lock Nut (3mm)	2
	Washer (3x15mm)	2

Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here!

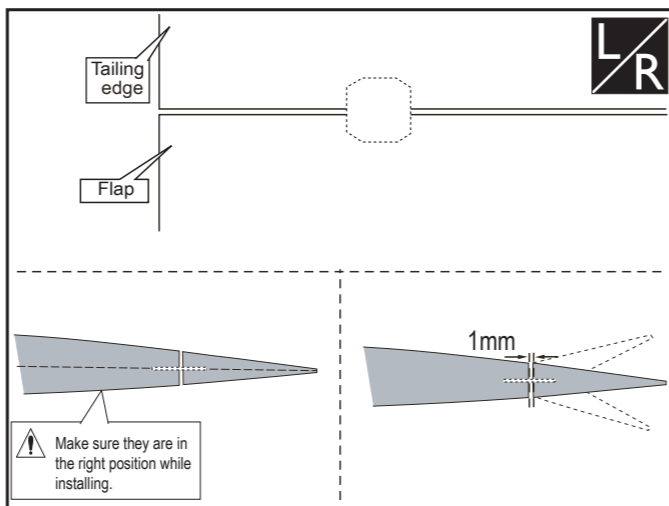
Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

Do not overlook this symbol!
 Warning!

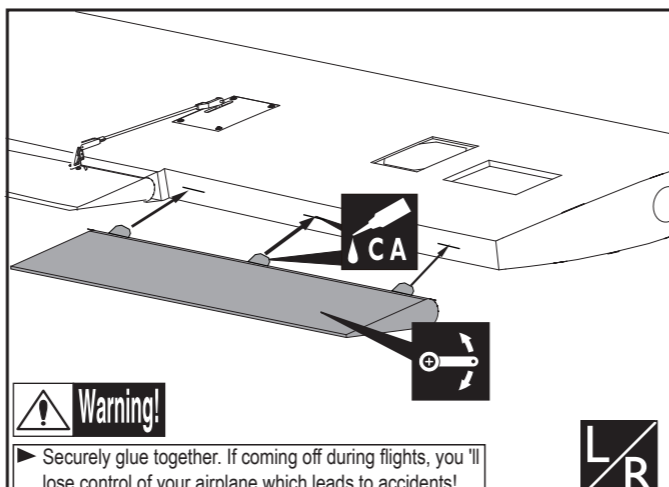
8 Apply instant type CA glue to flap and pin hinges.



9 Keep some space about 1mm width between trailing edge and flap.



10 Assemble the flap to main wing with instant type CA glue. Be careful to ensure the moving parts of the hinges are able to move freely.

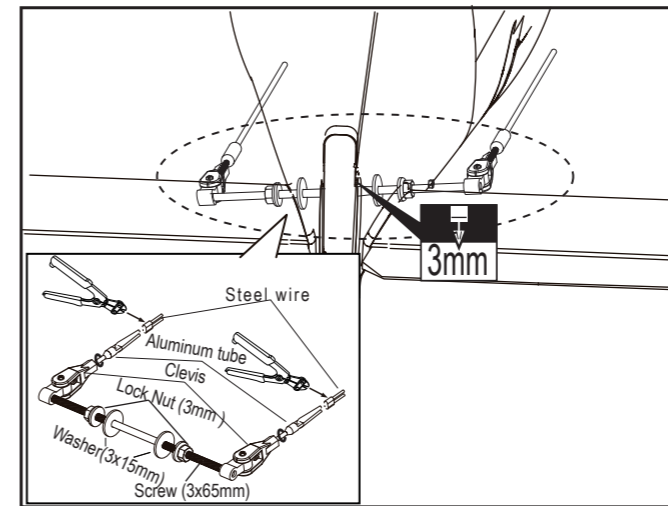


Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here!

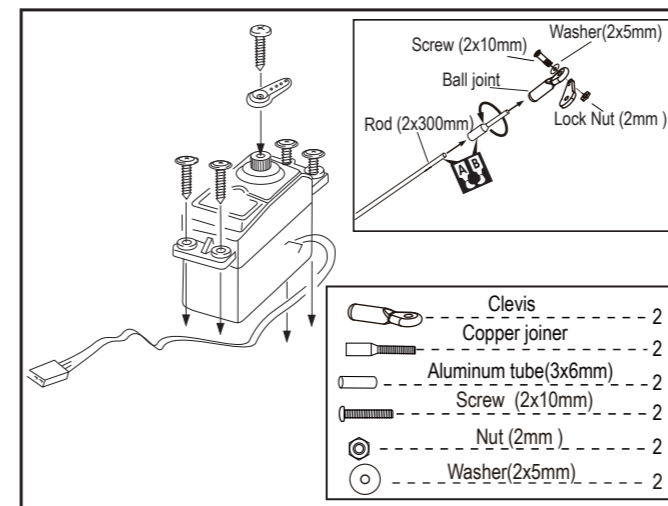
Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

Do not overlook this symbol!
 Warning!

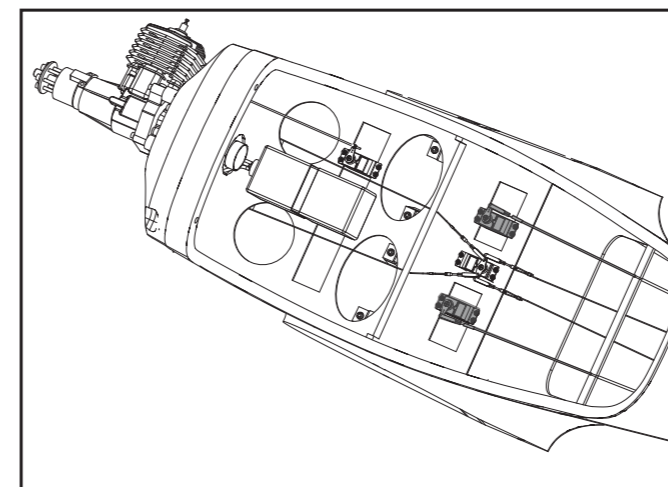
54 Collect the linkage rod to the horn.



55 Install the servo.



56 Assemble the servos in the fuselage.

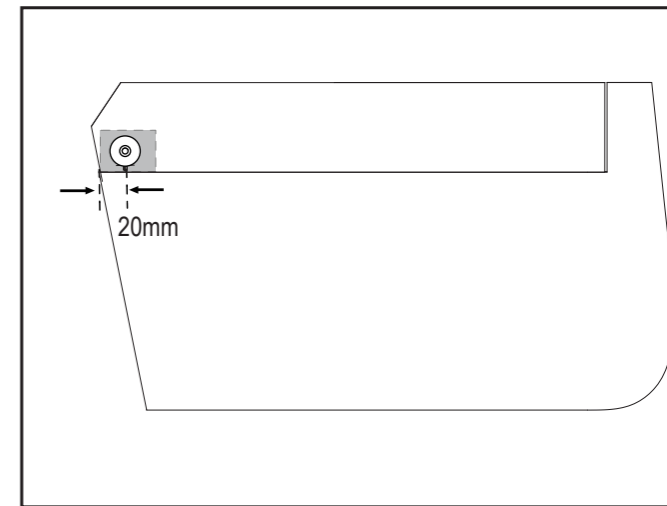


Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here!

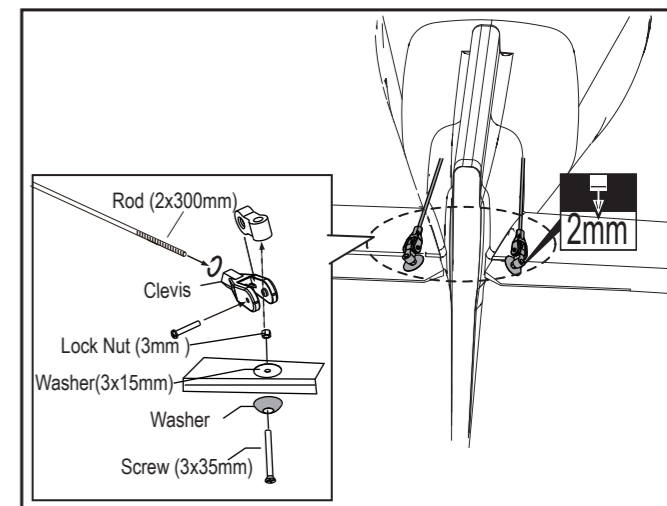
Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

Do not overlook this symbol!
 Warning!

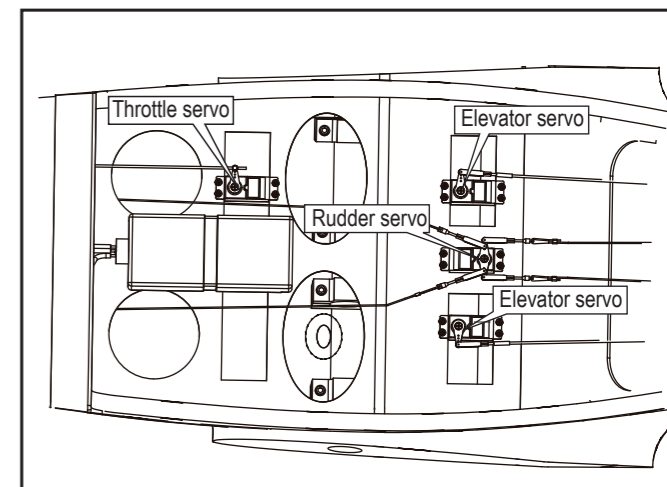
57 The position of the horn in the elevator.



58 Connect the linkage rod to the horn.



59 The sketch map when the servos install completion.



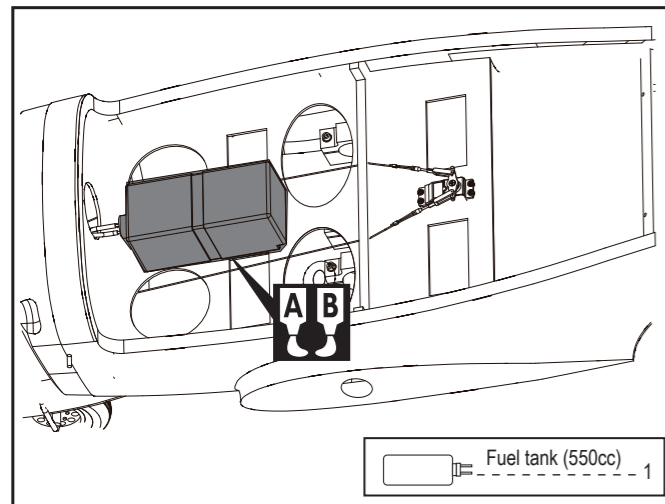
Apply epoxy glue. Assemble left and right sides the same way. Pay close attention here!

Apply instant glue (CA glue, super glue). Ensure smooth non-binding movement while assembling. Cut off shaded portion.

Do not overlook this symbol!
 Warning!

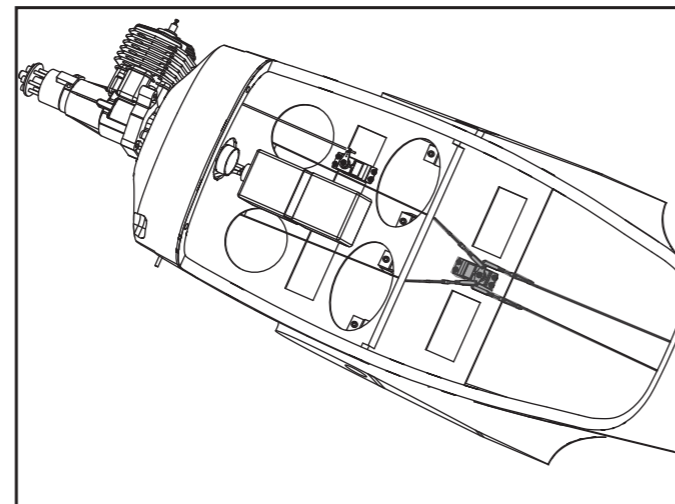
49

Mount the fuel tank into the fuselage.



51

Assemble the servo to the fuselage.

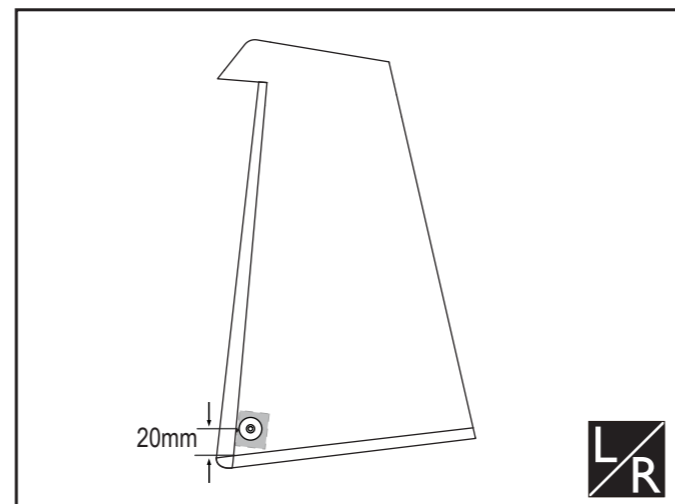


Accessory list for the coming installation steps.

	Clevis	4
	Retainer	4
	Screw (3x35mm)	2
	Washer (3x15mm)	4
	Lock Nut (3mm)	2
	Washer (3x15mm)	2
	Screw (3x65mm)	1
	Fiberglass pushrod (3x755mm)	2
	Steel wire (0.5x1500mm)	2
	Copper joiner	4
	Pin hinge (24x24mm)	9
	Linkage Stopper	2
	Clevis	4
	Aluminum tube (3x6mm)	4
	Screw (2x10mm)	4
	Nut (2mm)	4
	Washer (2x5mm)	2

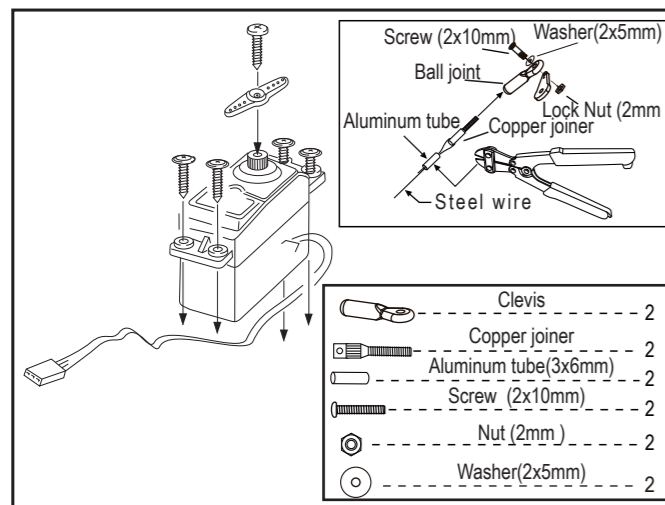
52

The position of the horn in the rudder.



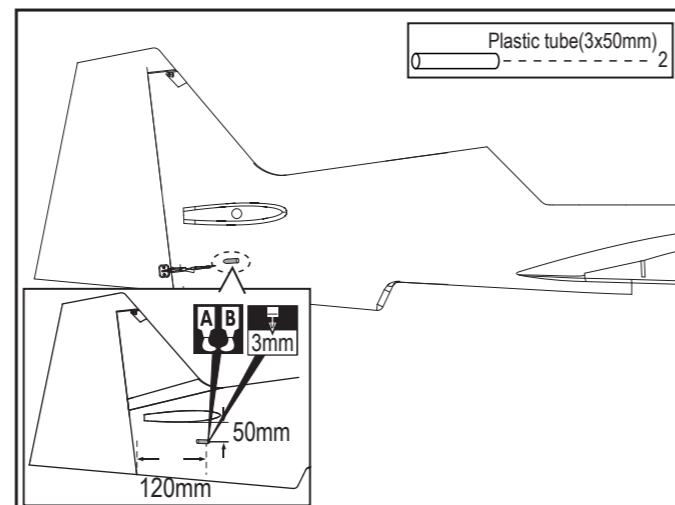
50

Install the nylon control ring for switch and connect the linkage.



53

Drill holes and mount plastic tubes for guiding pushrod.



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).



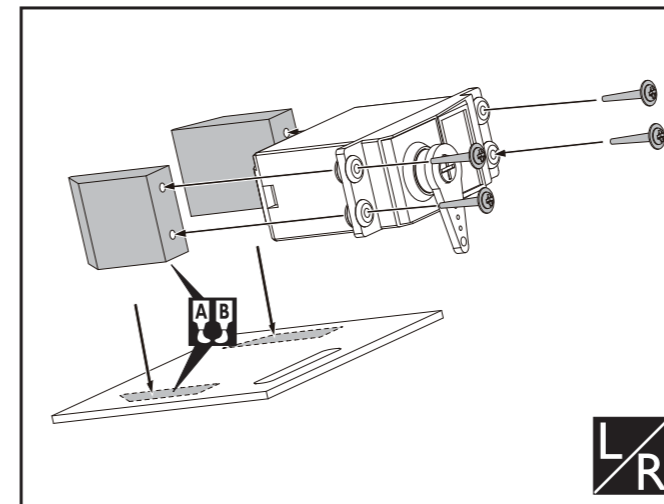
Ensure smooth non-binding movement while assembling.



Cut off shaded portion.

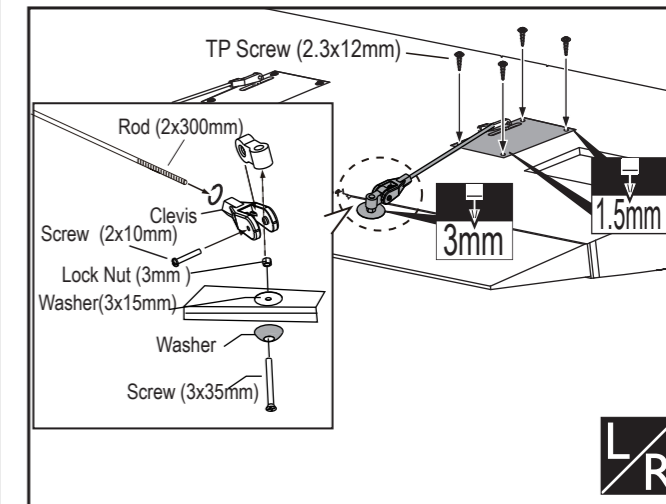
11

Install the servo.



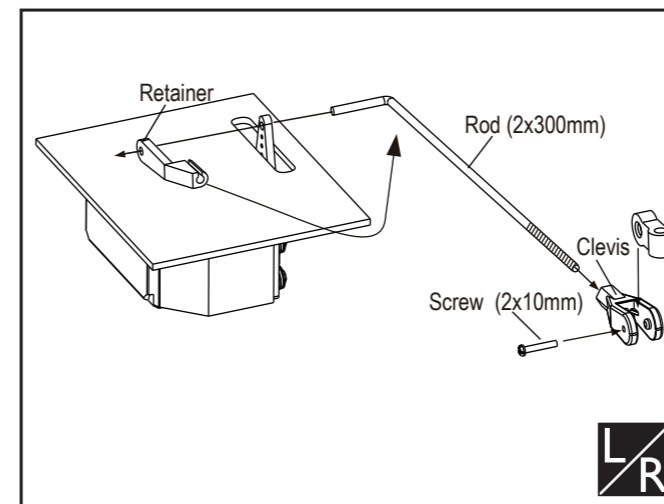
14

Secure the servo. Install the nylon control horn and connect the linkage.



12

Install the nylon control horn and connect the linkage.

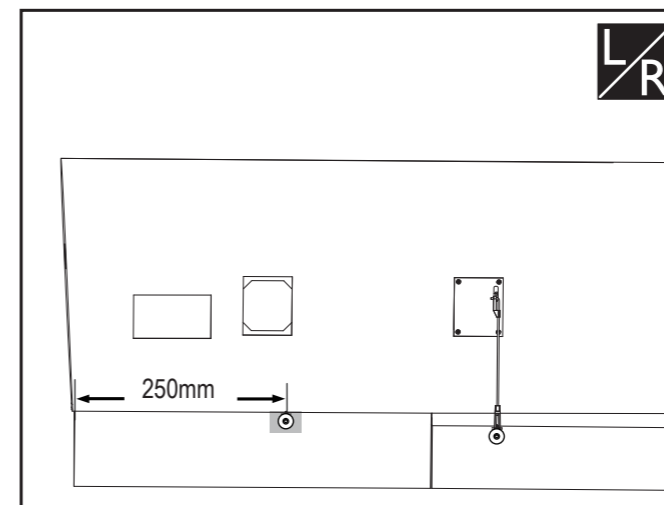


Accessory list for the coming installation steps.

	Screw (4x45mm)	2
	Washer (4x12mm)	4
	Nut (4mm)	2
	Nylon Nut (4mm)	2
	Collar (4mm)	2
	Tail wheel (90mm)	2
	Rib template (3mm ply)	1
	Main wing joiner (30x483mm)	2
	Washer (3x6mm)	12
	TP Screw (2.6x14mm)	6
	Main landing gear	1
	TP Screw (3x20mm)	6
	Wheel pant	2
	Wood dowel (6x50mm)	4

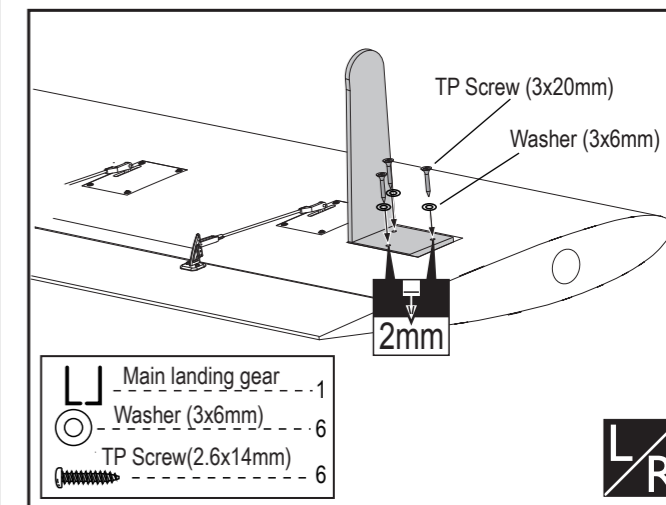
13

The position of the control horn in the flap.



15

Assemble the mail landing gear to the wings with TP Screws



Apply epoxy glue.



Assemble left and right sides the same way.



Pay close attention here!

Do not overlook this symbol!



Apply instant glue (CA glue, super glue).

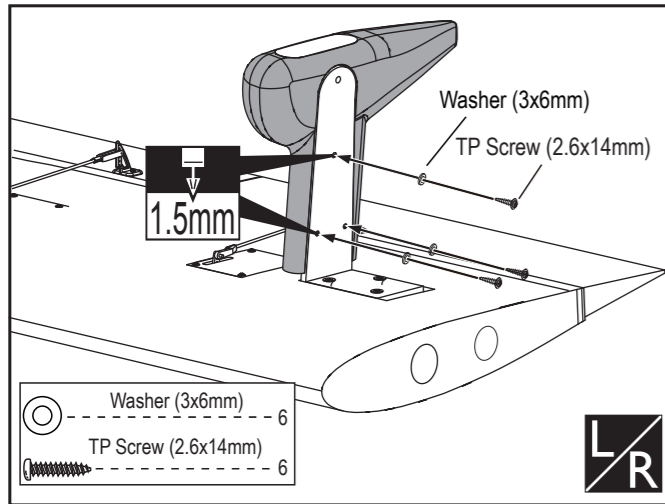


Ensure smooth non-binding movement while assembling.

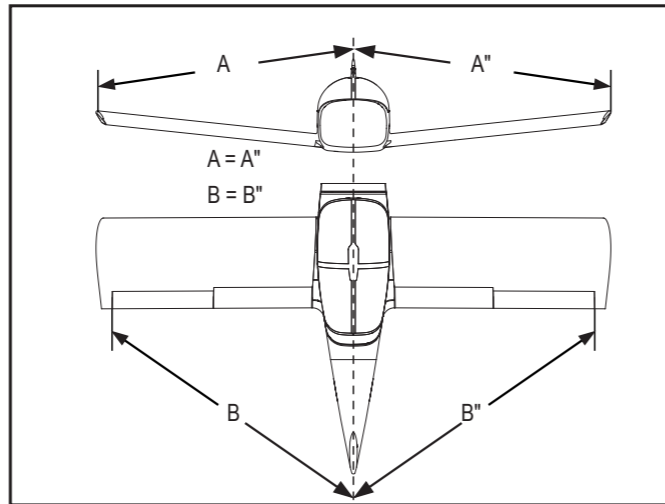


Cut off shaded portion.

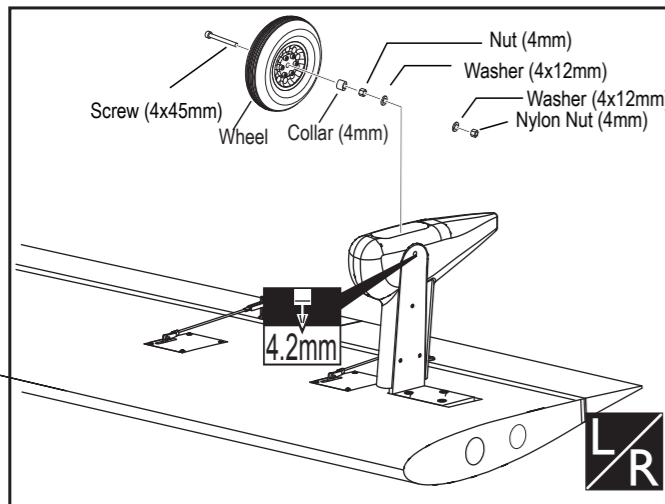
16 Assemble the wheel pants with TP Screw.



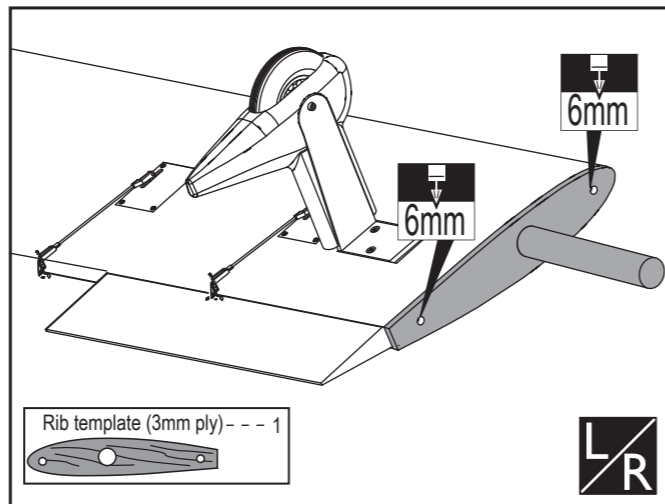
19 Assemble the main wing.



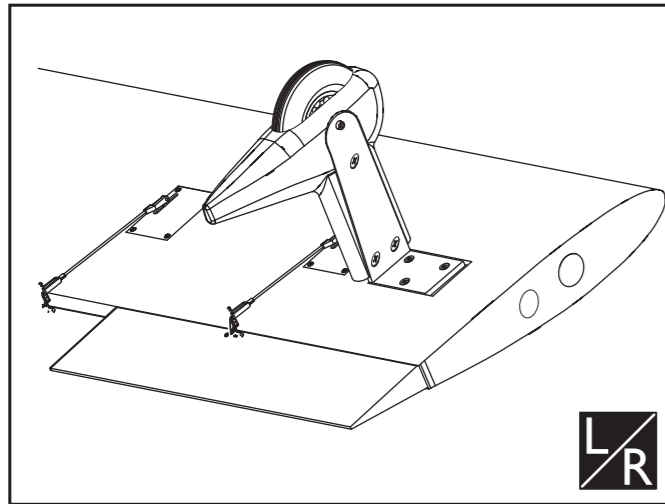
17 Assemble the wheel.



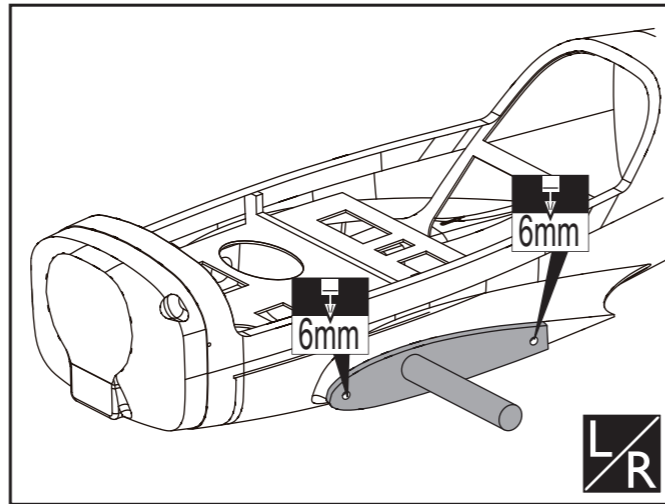
20 Drill holes on the wing root according to the rib template as below.



18 The sketch map when the wheels install completion.



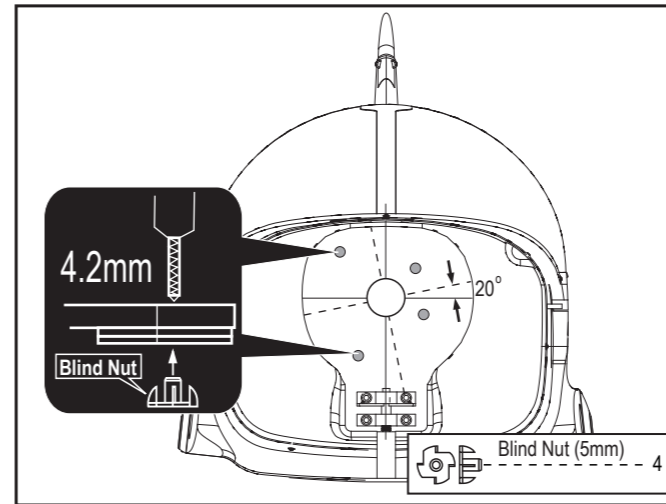
21 Drill holes on the outboard of fuselage according to rib template



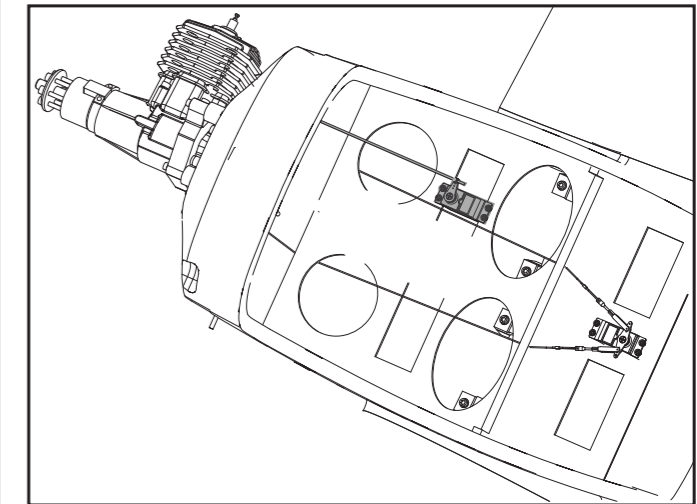
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

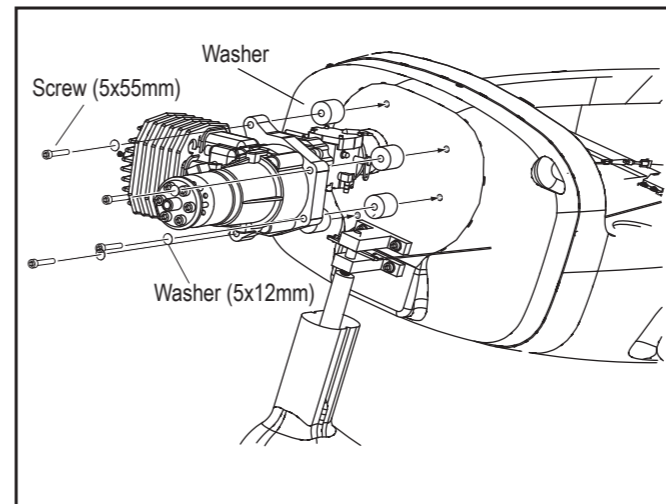
43 Drill four holes at the diameters as shown for engine mount.



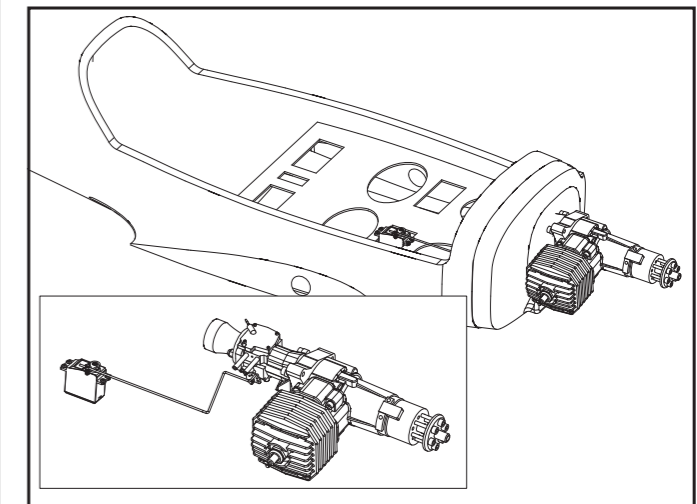
46 Assemble the throttle servo in the fuselage.



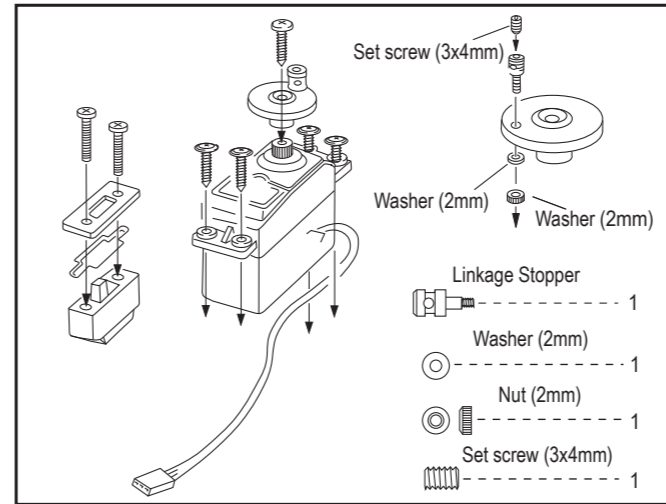
44 Assemble the engine.



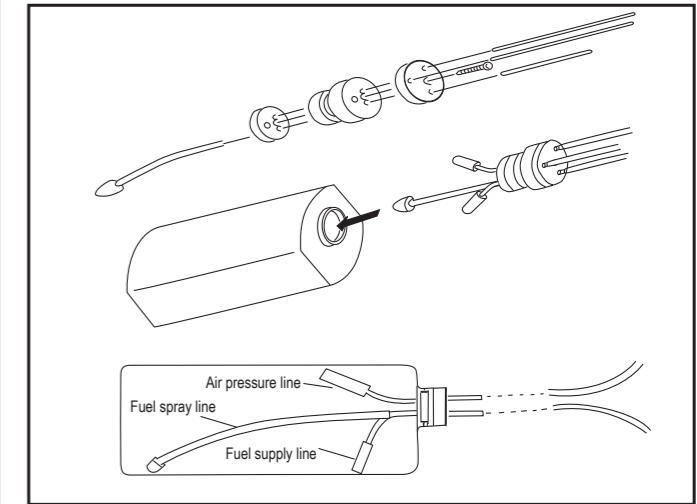
47 The sketch map of the throttle servo connect the engine.



45 Assemble the servos and switch.



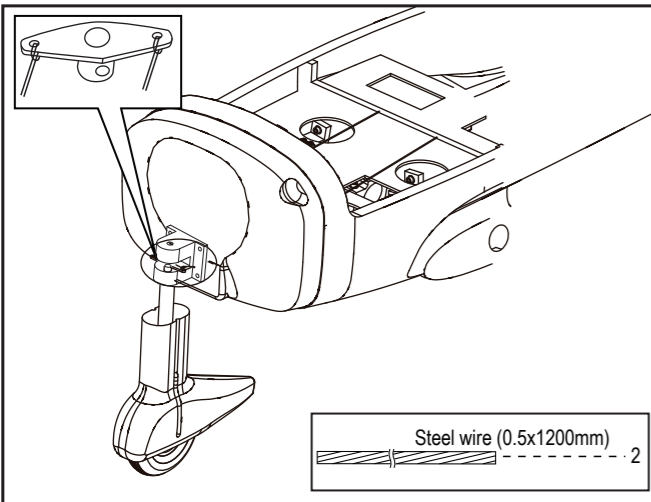
48 Assembly of the fuel tank.



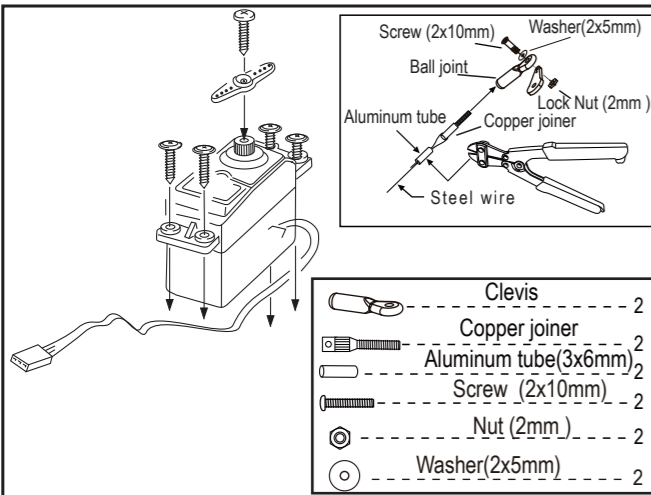
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

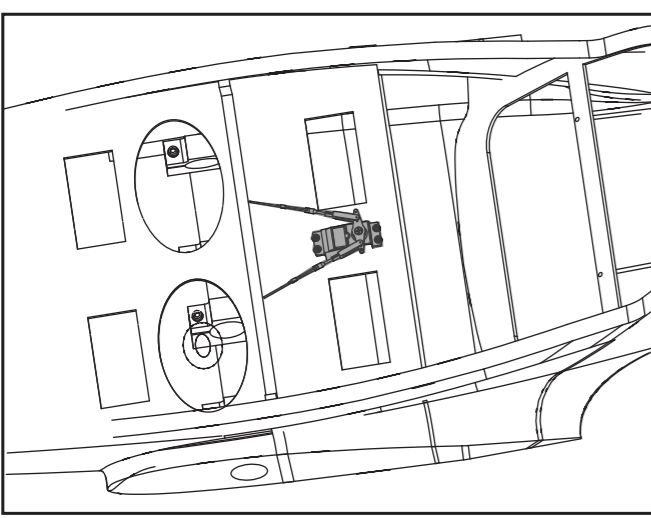
38 Connect the steel wire linkage to the arm as shown.



39 Install the rudder servo.



40 Assemble the rudder servo in the fuselage.



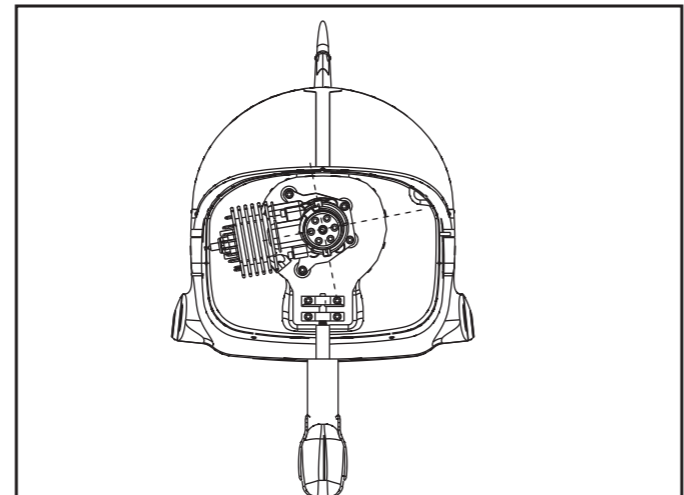
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

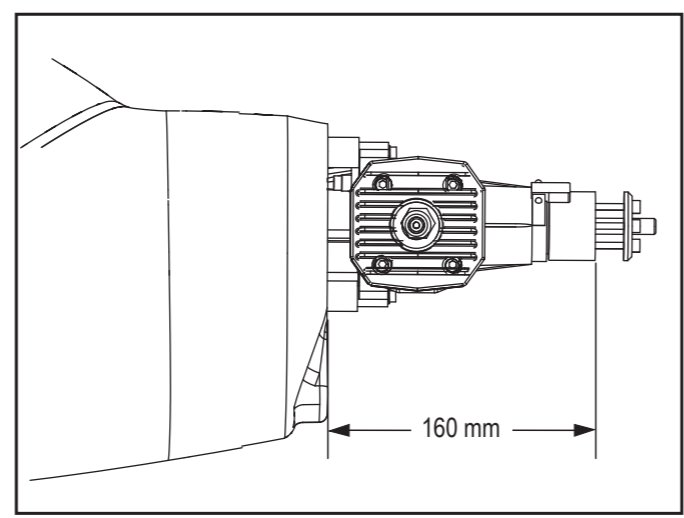
Accessory list for the coming installation steps.

- Screw (5x55mm) ----- 4
- Washer(5x12mm) ----- 12
- Spring Washer (5mm) ----- 4
- Linkage Stopper ----- 1
- Plastic tube (2x650mm) ----- 1
- Blind Nut (5mm) ----- 4
- Washer(10x20mm) ----- 4
- Fuel tank (550cc) ----- 1

41 The front view when the engine install completion.



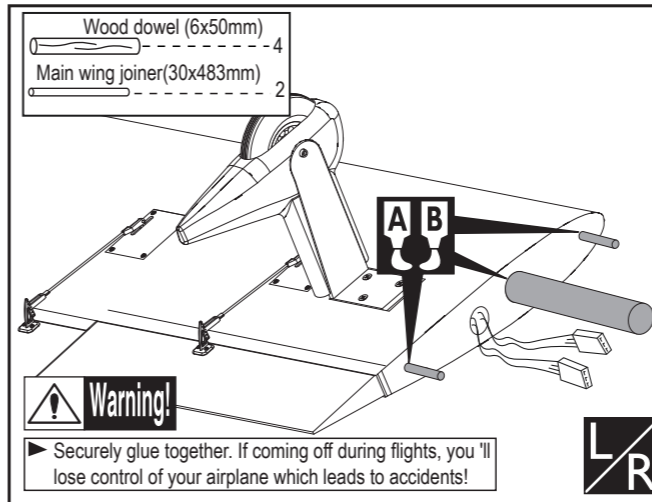
42 The side view when the engine install completion.



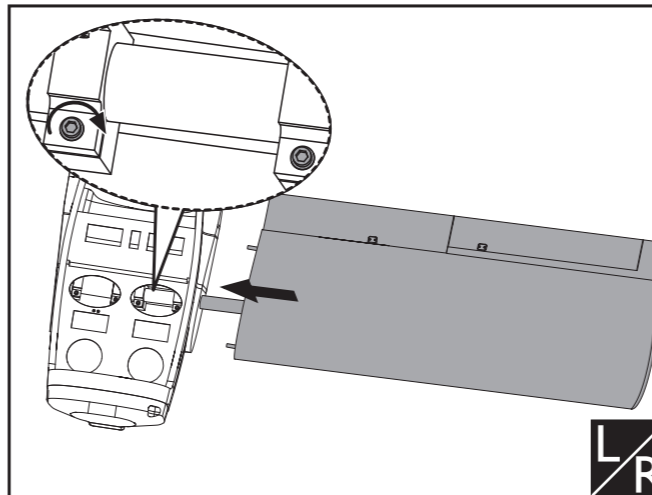
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

22 Epoxy the dowel to the holes.



23 Fasten the main wing with the rubber band.



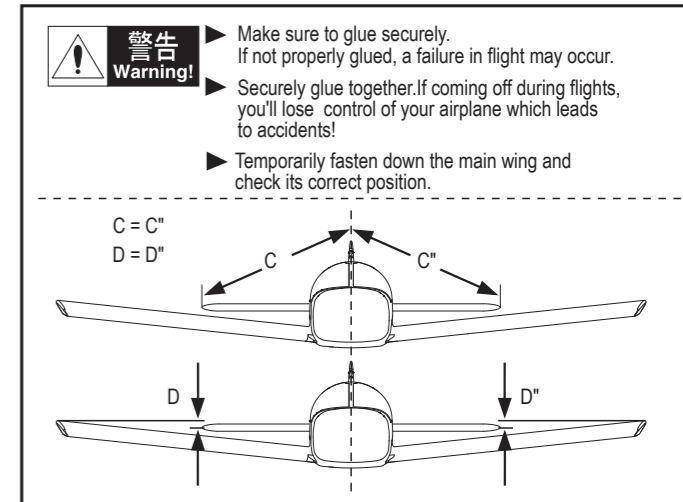
Accessory list for the coming installation steps.

- Pin hinge(24x24mm) ----- 9
- Stab joiner (16x300mm) ----- 1
- Metal douel (4x30mm) ----- 4
- Rib template (3mm ply) ----- 1

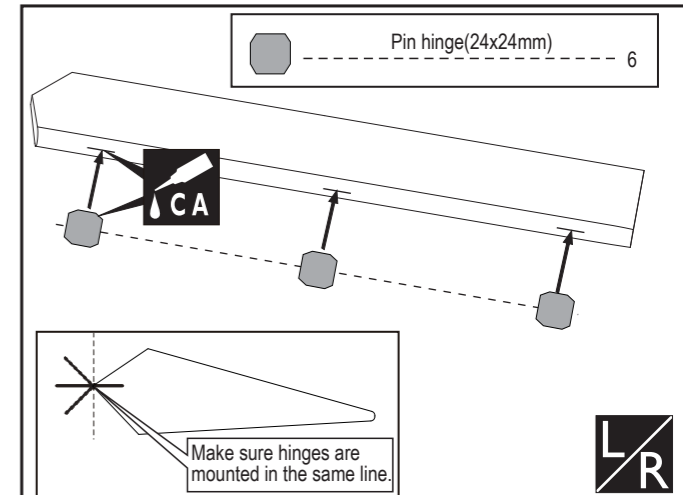
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

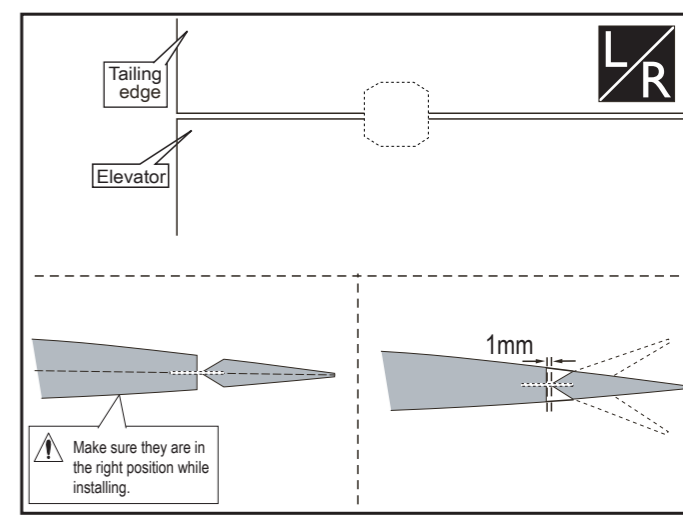
24 The standard sketch map when the horizontal tail & vertical tail install completion.



25 Apply instant type CA glue to elevator and pin hinge.



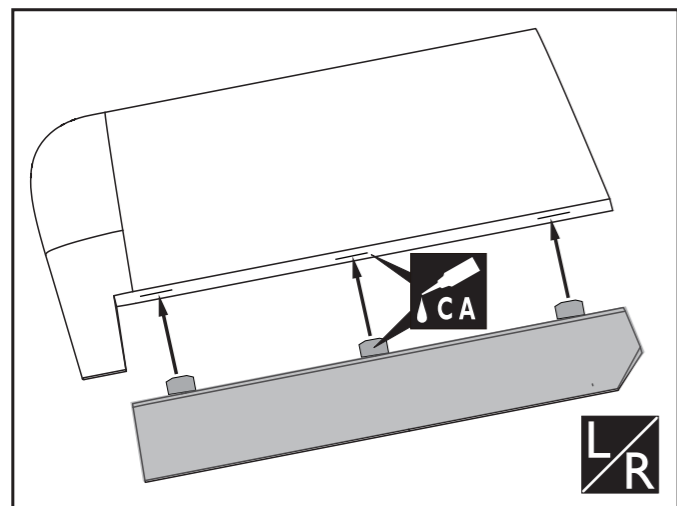
26 Keep some space about 1mm width between elevator and tailing edge.



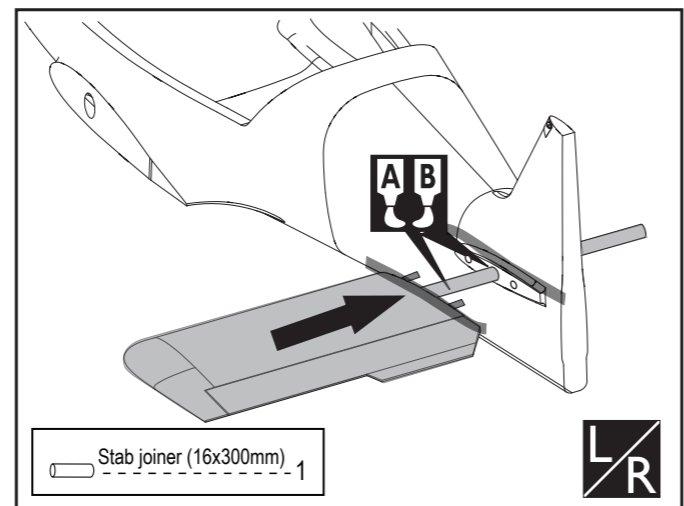
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

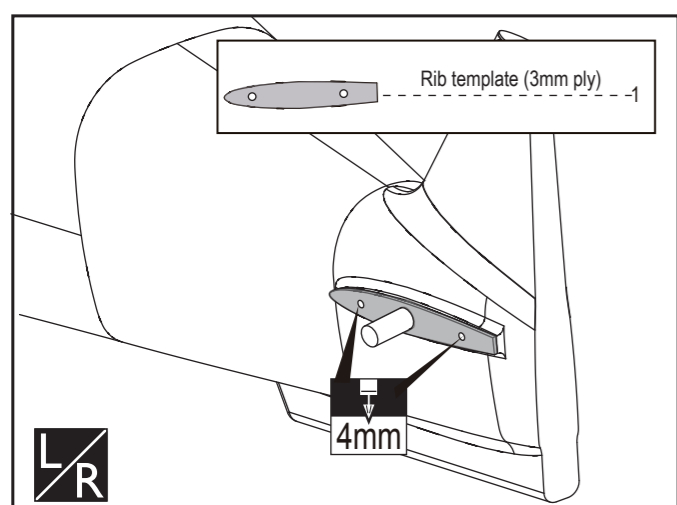
27 Assemble the elevator to the horizontal tail with instant type CA glue.



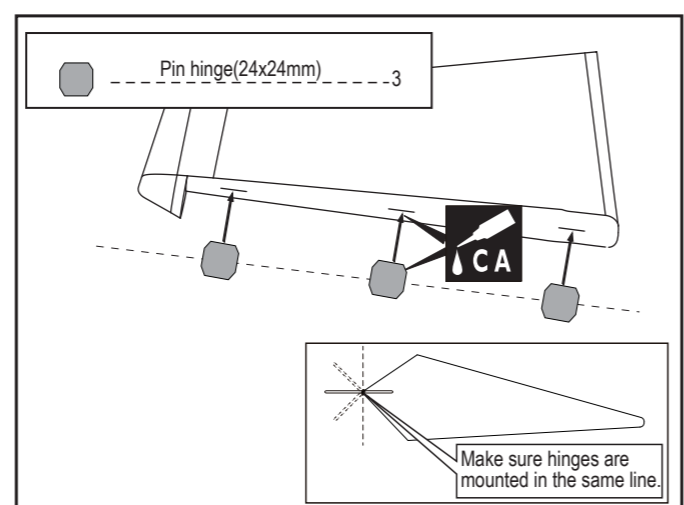
30 Epoxy the horizontal tail to the fuselage and take care to keep it clean.



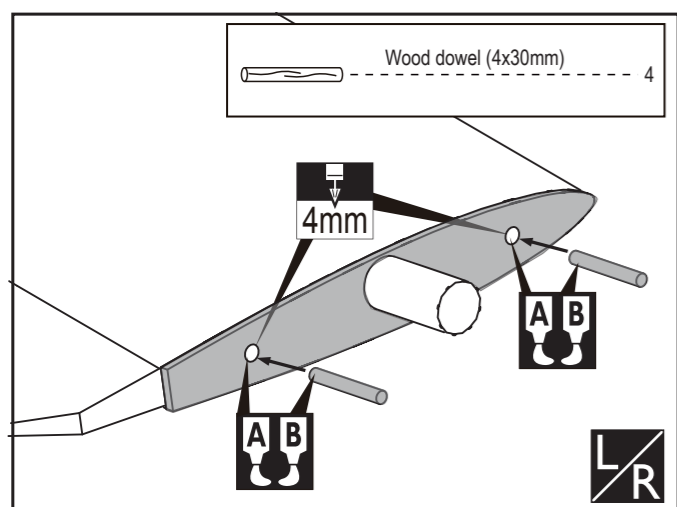
28 According to the rib template drill holes to the tail of fuselage as below.



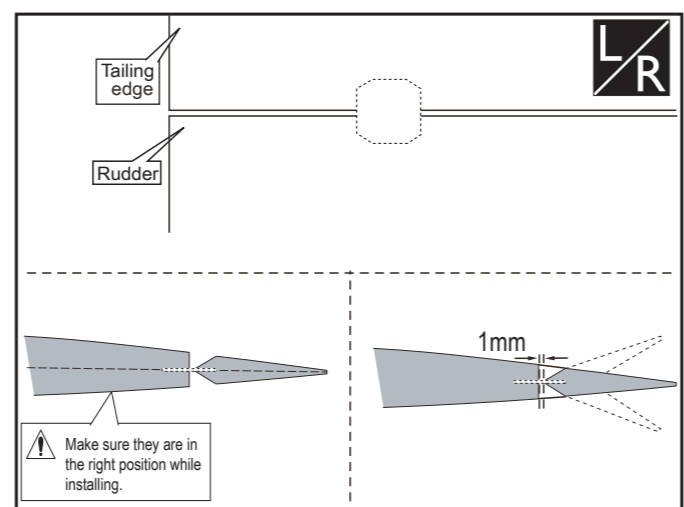
31 Apply instant type CA glue to rudder and pin hinge.



29 Drill two holes at the stabilizer root base on rib template and epoxy the metal dowel in them.



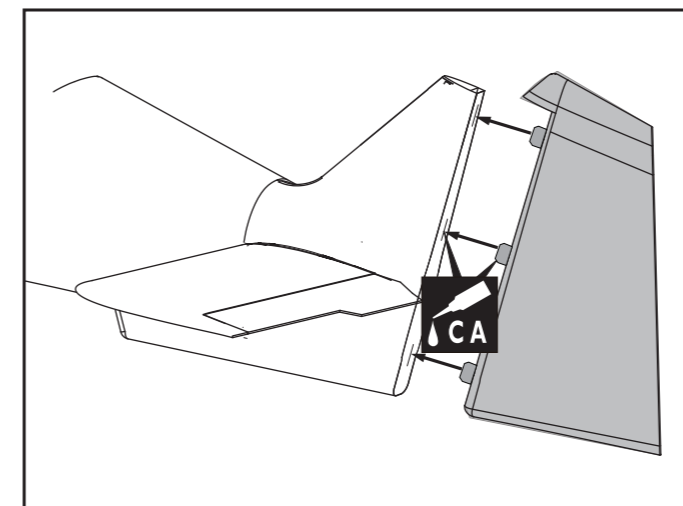
32 Keep some space about 1mm width between the tailing edge and the rudder.



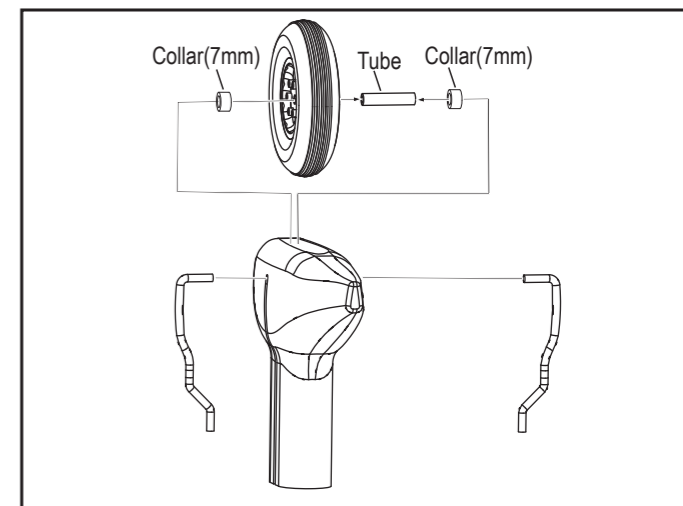
Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.

33 Assemble the rudder to the horizontal tail with instant type CA glue.



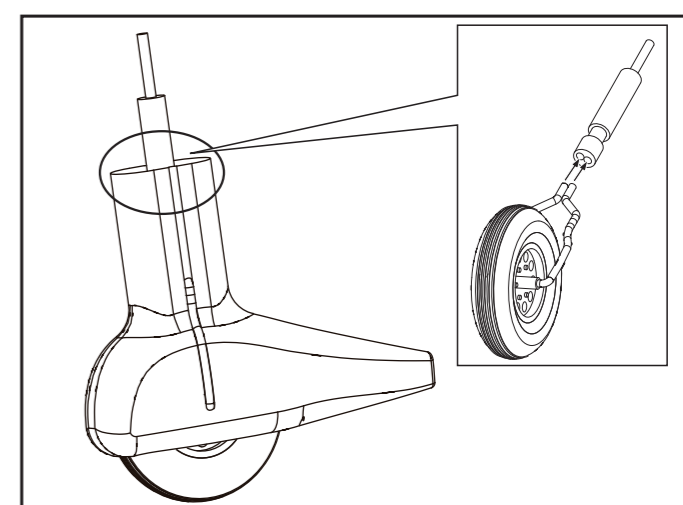
35 Assemble the tire to wheel pant through landing wire.



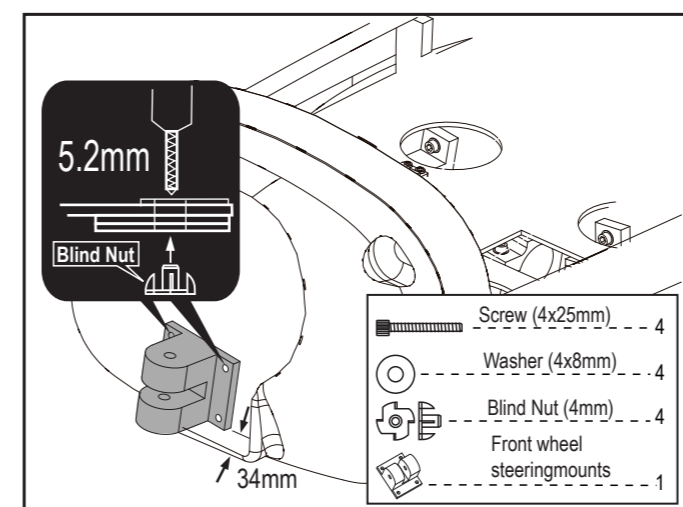
Accessory list for the coming installation steps.

- | | |
|-------------------------------|-----------------------------------|
| Screw (4x25mm) ... 4 | Anti-vibration landing gear ... 1 |
| Washer (4x6mm) ... 4 | Aluminum tube(6mm) ... 1 |
| Blind Nut (4mm) ... 4 | Aluminum part(60x6mm) ... 1 |
| Wheel (90 mm) ... 1 | Aluminum tube(3x6mm) ... 2 |
| Collar (7mm) ... 2 | Copper joiner ... 2 |
| Collar (5mm) ... 2 | Front wheel steering mounts ... 1 |
| Tube ... 1 | Clevis ... 2 |
| Landing gear(5mm) ... 1 | Screw (2x10mm) ... 2 |
| Steel wire (0.5x1500mm) ... 2 | Nut (2mm) ... 2 |
| | Washer(2x5mm) ... 2 |

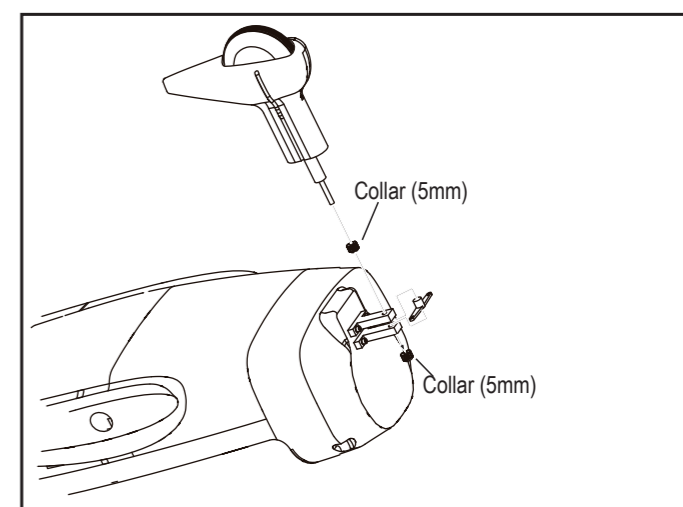
36 Attach landing wire to oleo strut.



34 Drill holes and set blind nut for assembling nose gear mount.



37 Assemble the nose gear to mounting plate.



Apply epoxy glue.
 Assemble left and right sides the same way.
 Pay close attention here!
 Do not overlook this symbol!

Apply instant glue (CA glue, super glue).
 Ensure smooth non-binding movement while assembling.
 Cut off shaded portion.